# Assignment-1

Exercises

## Answerthequestionsorcompletethetasksoutlinedinboldbelow,usethespecificmethoddescribedifapplicable.

\*\*Whatis7tothepowerof4?\*\*

7\*\*4

2401

## \*\*Splitthisstring:\*\*

s="HithereSam!"

### \*intoalist.\*

s="Hithere Sam!"

l=list(map(str,s.split()))print(l)

['Hi', 'there', 'Sam!']

## \*\*Giventhevariables:\*\*

planet="Earth"diameter=12742

## \*\*Use.format()toprintthefollowingstring:\*\*

ThediameterofEarthis12742kilometers.

d1="Thediameterof {planet}is {diameter}kilometers".format(planet ="Earth", diameter=12

print(d1)

The diameter of Earth is 12742 kilometers

## \*\*Giventhisnestedlist,useindexingtograbtheword"hello"\*\*

lst=[1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]

print(lst[3][1][2][0])hello

## \*\*Giventhisnestdictionarygrabtheword"hello".Beprepared,thiswillbeannoying/tricky\*\*

d={'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}

print(d['k1'][3]['tricky'][3]['target'][3])hello

## \*\*Whatisthemaindifferencebetweenatupleandalist?\*\*

Lists are mutable,Tuples are immutable

## \*\*Createafunctionthatgrabstheemailwebsitedomainfromastringintheform:\*\*

[user@domain.com](mailto:user@domain.com)

# Soforexample,passing"[user@domain.com](mailto:user@domain.com)"wouldreturn:domain.com

defgmail(email):

returnemail.split('@')[-1]

gmail(["user@domain.com"](mailto:user@domain.com))

'domain.com'

## \*\*CreateabasicfunctionthatreturnsTrueiftheword'dog'iscontainedintheinputstring.Don'tworryaboutedgecaseslikeapunctuationbeingattachedtotheworddog,butdoaccountfor

capitalization.\*\*

deffunction(s):

x=s.lower().split()foriinx:

if(i=="dog"):returnTrue

returnFalse

function("I have a pet DOG")True

## \*\*Createafunctionthatcountsthenumberoftimestheword"dog"occursinastring.Againignoreedgecases.\*\*

def function1(s):count=0

x=s.lower().split()foriinx:

if(i=="dog"):

count=count+1returncount

print(function1("i have a pet dog . and dog is so friendly"))2

Problem

### \*Youaredrivingalittletoofast,andapoliceoficerstopsyou.Writeafunctiontoreturnoneof3

*possibleresults:"Noticket","Smallticket",or"BigTicket".Ifyourspeedis60orless,theresultis"NoTicket".Ifspeedisbetween61and80inclusive,theresultis"SmallTicket".Ifspeedis81ormore,theresultis"BigTicket".Unlessitisyourbirthday(encodedasabooleanvalueintheparametersofthe*

### function)--onyourbirthday,yourspeedcanbe5higherinallcases.\*

defcaught\_speeding(speed,is\_birthday):

ifis\_birthday:

speeding = speed - 5else:

speeding = speed

ifspeeding >80:

return 'Big Ticket'elifspeeding >60:

return 'Small Ticket'else:

return'No Ticket'

caught\_speeding(84,False)

'BigTicket'

caught\_speeding(50,True)

'NoTicket'

## Createanemployeelistwithbasicsalaryvalues(atleast5valuesfor5employees)andusingaforloopretreiveeachemployeesalaryandcalculatetotalsalaryexpenditure.

e=[20000,40000,60000,50000,10100]

sum=0

print("Employeesalary")foriine:

sum=sum+iprint(i)

print("Total Expenditure")print(sum)

Employee salary20000

40000

60000

50000

10100

Total Expenditure180100

## CreatetwodictionariesinPython:

FirstonetocontainfieldsasEmpid,Empname,BasicpaySeconddictionarytocontainfieldsasDeptName,DeptId.Combinebothdictionaries.

dict1={"empid":11,"empname":"priya","basicpay":13000};dict2={"deptname":"cs","deptid":34}

dict1.update(dict2)print(dict1)

{'empid': 11, 'empname': 'priya', 'basicpay': 13000, 'deptname': 'cs', 'deptid': 34}

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